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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,806	05/27/2005	Bernd Wenderoth	3557-43	4541
23117	7590	12/13/2007		
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER OGDEN JR, NECHOLUS	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 12/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/536,806	Applicant(s) WENDEROTH ET AL.	
	Examiner Necholus Ogden	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10-15-2007 has been entered.

Response to Amendment

1. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eaton et al (6,818,146) in view of WO (02/055630).

Eaton et al disclose a nontoxic fuel cell engine coolant comprising aqueous solutions of 1,3 propanediol having 50, 55 and 60% volume percent in water (col. 3, lines 10-30) and wherein said solution comprises 0.002 to 0.02% by weight of mercaptobenzothiazole, benzyltriazole in water (see claims 5 and 6). Eaton et al specifically teach that said conductivity is less than 50 in tables 6 and 7.

Eaton et al disclose all of the instantly required except the orthosilicic acid esters.

WO '630 discloses orthosilicic acid esters in fuel cell engine coolant compositions having a conductivity of less than 50 us/cm (see abstract).

It would have been obvious to one of ordinary skill in the art to include the orthosilicic acid esters of WO '630 to the compositions of Eaton et al because WO '630

teaches that said orthosilicic acid esters aid in preventing short circuits and corrosion in said fuel cells (page 2, lines 24-28).

Therefore, it would have been obvious to one ordinary skill in the art, at the time the invention was made, to include an orthosilicic acid ester as suggested by WO '630 to the compositions of Eaton et al because only beneficial and or synergistic would have been obtained in the absence of a showing to the contrary.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO (02/055759 in view of WO (02/055630).

WO '759 discloses a nontoxic fuel cell engine coolant comprising aqueous solutions of 1,3 propanediol having 50, 55 and 60% volume percent in water (page 9, line 23-page 10, line 10 and page 11, lines 13-31) and wherein said solution comprises 0.002 to 0.02% by weight of mercaptobenzothiazole, benzyltriazole in water (see claims 6 and 7). WO '759 specifically teaches that said conductivity is less than 50 in tables 6 and 7

WO '759 does not disclose an orthosilicic acid ester.

WO '630 discloses orthosilicic acid esters in fuel cell engine coolant compositions having a conductivity of less than 50 us/cm (see abstract).

It would have been obvious to one of ordinary skill in the art to include the orthosilicic acid esters of WO '630 to the compositions of WO '759 because WO '630 teaches that said orthosilicic acid esters aid in preventing short circuits and corrosion in said fuel cells (page 2, lines 24-28).

Therefore, it would have been obvious to one ordinary skill in the art, at the time the invention was made, to include an orthosilicic acid ester as suggested by WO '630 to the compositions of WO '759 because only beneficial and or synergistic would have been obtained in the absence of a showing to the contrary.

Response to Arguments

3. Applicant's arguments filed 10-15-2007 have been fully considered but they are not persuasive.
4. Applicant argues that Table 1 of applicant's specification shows unexpected results, commensurate in scope with the claimed invention, by providing illustrations of his compositions having conductivity less than 10 uS/cm for 28 days of use.
5. The examiner contends that applicant's showing in Table 1 does little to distinguish the claimed invention from the prior art of record. First, applicant does not compare the claimed invention against the prior art of record wherein a clear distinction could be made. Secondly, the examiner asserts that low conductivity amongst fuel cells has already been disclosed in Eaton '146 at column 10, lines 57-63 and WO '759 at page 9, lines 21-25 and Tables 6 & 7, which states that compositions having greater than 250 kOhm-cm are desired to formulate fuel cell coolants to comprise a low conductivity. Moreover, secondary reference WO '630 further adds by suggesting that said silicone additive be employed to aid in reducing the conductivity to less than 5 uS/cm (page 4, lines 31-36). Therefore, nothing is seen unexpected by providing fuel cell coolant compositions with low conductivity of less than 10 uS/cm since the prior art of record teaches known ingredients that aid in establishing fuel cell coolants with

conductivity of less than 5 uS/cm. Accordingly, it is held that an affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. In re Burckel, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979). "A comparison of the claimed invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." In re Merchant, 575 F.2d 865, 868, 197 USPQ 785, 787 (CCPA 1978). Where the comparison is not identical with the reference disclosure, deviations therefrom should be explained, In re Finley, 174 F.2d 130, 8 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required. In re Armstrong, 280 F.2d 132, 126 USPQ 281 (CCPA 1960).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholus Ogden whose telephone number is 571-272-1322. The examiner can normally be reached on M-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Nicholas Ogden
Primary Examiner
Art Unit 1796

No
12-8-2007